

MINIMAL MAINTENANCE LINK TO SUPPORT SYNCHRONIZATION

Abstract of the Disclosure

Multiple field units in a CDMA system are synchronized for communication with a base station using a shared
5 forward and reverse link channel. Each field unit is assigned a time slot in a forward link channel to receive messages from the base station. Likewise, each field unit is assigned a time slot on a common reverse link channel for transmitting messages to the base station. Timing
10 alignment among each of many field units and the base station is achieved by analyzing messages received at the base station in a corresponding time slot from each field unit. Thereafter, a message is transmitted in a corresponding time slot to a particular field unit from the
15 base station for adjusting its timing so that future messages transmitted from the field unit are received in the appropriate time slot at the base station. In this way, minimal resources are deployed to maintain communication and precise synchronization between a base
20 station and each of multiple users, minimizing collisions between field units transmitting in adjacent time slots on the reverse link.